

Plastic Surgery In Kangra

(A leaf from the history of Plastic Surgery in India)

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With the re-organisation of Punjab, the hilly district of Kangra now forms a part of Himachal Pradesh. History of Kangra shows that Plastic Surgical operations for the restoration of cut noses, ears, and tongues and treatment of eye diseases were performed for centuries at Kangra by caste of Kanghairas. These operations were common because cutting of nose, hands, ears and tongue were the punishments given to criminals by the kings and to unfaithful wives by the husbands. The author in his paper on "Plastic surgery and cross-grafting operations in Ancient India" read at Patiala (1965) mentioned about the plastic surgery in Kangra as narrated by Shri M.S. Randhawa I.C.S. In that report the description of rhinoplasty at Kangra given by the French Traveller Vigne did not confirm to the standard Indian Method, and that roused a suspicion in the mind of the author as to the correctness of Vigne's report. The author therefore paid a personal visit to Kangra in September 1966 to make an on the spot inquiry and verify the facts for himself. This communication gives in short the findings of that inquiry.

The nose-makers of Kangra are known as "Kanghairas". The last surviving Hakim

who now practices the family art and is in possession of the books, instruments, technical know-how and historical background of nose making at Kangra is Mr. Dina Nath Kanghaira.

When he agreed to tell the author all about the art of nose-making in Kangra, he stressed that until now they had kept it a strict family secret. During an operation of Rhinoplasty he said they could keep a daughter-in-law as an assistant, but would never allow a daughter even near the operation room, because they did not want the secret to leak into the family where their daughter would be married. He said that reports of nose-making at Kangra published in books by writers and travellers until now were just reports they got from the "men in the street" because none of their family members would divulge the secret of the operation to any outsider.

None of his family members except him was interested in this work, because it was no longer paying, so his sons had taken to other jobs. He however was very keen to possess the old books, instruments and records and would not part with those at any cost. He had himself performed operations during twenties and thirties of this century, and was keen to operate if he

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could get patients. He said the public of Kangra had made it known to all whom they came in contact, that none was now practising nose-making at Kangra and that had adversely effected him and he no longer got any patients for operation.

Mr. Dina Nath Kanghaira Hakim belongs to a Bhatnagar Kayastha family who migrated to Kangra some centuries back from Delhi or adjoining U.P. Sunder Lal his uncle was well known for the repair of noses, ears, treatment of eye diseases and Dina Nath got his practical training working with his uncle at Kangra and Zamanabad.

Moghul Period Certificates

Hakim Dina Nath said their family had been practising the art of Rhinoplasty since the war of Kurukshetra (i.e. Mahabharata) and at Kangra they have been operating since the time of Raja Sansar Chand I (1440 A.D.). There is a family certificate of Hikmat in possession of Hakim Dina Nath issued in the name of his great grand father "Hakim and Jarah" Kanwal Nain which bears the stamps of authority from the Moghul Kings Akbar, Jahangir, Shahjahan and "Alim Gir Shah" 1700 Shawal 18 Hijri Ajlus. Whenever the king of the country changed, the Hakims had to get their certificate stamped afresh from the new king in order to practise medicine and surgery during his reign. That is how Hakim Dina Nath explained the three or four different stamps on the old certificate.

Books and field of practice

The art of Rhinoplasty had been a strict family secret and since it was not to

be told to any body else there has not been any writing or book in the family on this subject. They possess a copy of Sushruta Samhita in Sanskrit as a book on surgery. *In addition to Rhinoplasty and otoplasty, the family was proficient as bone setters and in the treatment of diseases of eye and other ailments in general.* There is a very old book on medicine (Hikmat) written on "SAN-PAPER" (jute paper) named "Sarangdhar", the author of the book is Siringhi Rishi. There was another book in Urdu on Unani Medicine and Surgery kept by the members of the family for reference. The authorship and year of publication of this book could not be traced out.

Rhinoplasty

Sources of patients for operation :

There were two kinds of patients coming for the Rhinoplasty operation. Most of the patients came from the Frontier Province (N.W.F.P.) and the adjoining Districts of Punjab; because cutting of the nose of unfaithful wives and defeated enemies was very common amongst the fighting tribes of these areas. To name patients came from Jamraut, Peshawar, Ali Masit, Landikot, Chaman, Kabul, Lorahlai, Otmardan and Rawalpindi. It was popular belief that the operation was successful only at Kangra because of the power and kindness of the local Goddess "Mata". Hakim Dina Nath told us that at Lahore his father and uncle had an office in the Jammu House owned by the Maharaja of Jammu & Kashmir, because they were the physicians to the Maharaja. Those patients of cut nose who were refused operation at the Mayo and Lady Wellington Hospital Lahore, and were hopeless and helpless,

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were brought to Jammu House by their agents, and from there they came to Kangra for repair of their cut noses. The number of women patients was more than the men.

The second group of patients who came for reconstruction of nose, were from Kangra-valley itself. They were patients having chronic 'Nazla' or nasal ulcer which took more than six to seven years to heal. It was only after their ulcers had healed and Nazla fully cured, leaving deformed noses of varying degrees of severity, that reconstruction of such noses was taken up by the Hakim Jarah. Leprosy is prevalent in Kangra and it is reasonable to assume that the cause of Chronic Nazla of Kangra patients was leprosy which when healed resulted in nasal deformity. Syphilis is another condition which results in depressed nose that is amenable to reconstructive procedures. Since the Hakims did not differentiate between leprosy and syphilis it is possible that they repaired post-leprosy and syphilitic noses. The common saying that Kangra nose was difficult to repair at Kangra arose from the observation that it took six to seven years for the nasal ulcers (Nazla) to heal during which period the patient was refused operation and it was only after his nasal wounds had healed completely that he was taken up for the reconstruction of his nose.

Popularity of the Procedure in Kangra Valley

Nose making seemed so common and trivial and so easy at Kangra that throughout the District the following couplet was known to all and recited by even the children while playing :—

"Soon-na bhai Soon-na"
bhatte Kanai Khanan
Nak paiya badhanan
Kangrain Jaai Lawanan"

(The pods of Soomna tree, if taken with rice, result in such a severe nasal irritation, that to get rid of that irritation we have to get our nose chopped off, and then get the nose reconstructed at Kangra !)

Hakim Dina Nath remembered the following two important cases operated by him. In the year 1925, there was a Tehsildar who came from Multan and whose nose had been cut off completely and who reported to them wearing a prosthesis attached to him spectacles. He was operated successfully by forehead flap method, and need not use his prosthesis after the operation. Hakim Dina Nath operated on Rawian Jatti of Rawalpindi in year 1937. That was the last case and no cases have come from Pakistan after the partition of India in the year 1947.

Operation Fees

The fees charged for the operation varied from Rs. 600/- to Rs. 700/- in those days. The patient had to deposit the full fees before operation. Hakim Dina Nath said if he were to operate on a case now, he would not charge less than Rs. 1500/-.

Pre-operative Procedures

(i) Report to Police for permission:— When a patient came for operation, he had to first report to the police that he wanted to undergo an operation and get permission from the police authorities for the same.

(ii) Risk Bond:— The patient had to execute a written risk bond before opera-

tion. This was just precautionary. Hakim Dina Nath said though none of their patients had died at the operation; if important blood vessel were cut during the operation and bleeding not stopped by the surgeon there was always the risk of the patient dying as a result of the operation.

(iii) Record Register :—A register was maintained showing the name and age of the patient, the address and duration of injury, date of operation and day of discharge.

(iv) "Kanya puja" :—The Hakims prayed to Goddess Mata of Kangra before operation and paying respects served meals to Kanyas (virgin unmarried girls) to invite the pleasure of the Goddess before performing the operation.

The Operation

The operation was performed in two stages; the second operation being done after a gap of three weeks.

The first operation

Anaesthesia :—The patient was conscious during the operation, She/he was given some wine to drink, and told to be bold with sympathetic and encouraging words. The patient did not feel much pain during the operation.

Position of the patient :—The operation is performed with the patient in the sitting position. This is to minimise bleeding.

The Surgeon and the Assistants :—The Surgeon according to his convenience works all around the patient while operating (Chirphir ke kam karta hai) just as a barber works while giving a hair-cut.

There are two assistants who help the operator by swabbing out blood, handing over instruments and dressings and holding instruments for the Surgeon. They stand and work as directed by surgeon from time to time during the operation.

Steps of Operation

(1) **Record of the defect on paper** :—The length, breadth and peripheries of the nasal defect are measured and recorded on a paper thus reproducing the defect on it.

(2) **Handkerchief around the neck** :—A handkerchief is tied around the neck of the patient in order to make the veins of the forehead prominent, the site of these veins is the marked on the forehead. This is done in order to save the important blood-vessels (Shahi-rag) during operation, and to include one vein in the pedicle of the flap to ensure venous drainage and proper circulation of blood in the flap. When the blood vessels had been marked the handkerchief around the neck is removed. There were two set of blood vessels coming up at the root of the nose and going to the right and left, and obliquely spreading out on either side upwards from above the inner edge of the two eyebrows.

(3) **Marking of the Defect on the forehead** :— Depending upon the size of the nasal defect, the length and breadth of forehead, position of blood vessels, taking care to avoid the Shahi-rag in the flap, and include one vein in it; the flap is marked on the forehead with Indian Ink oblique above one of the eyebrows, between the and the hair line of the head. The defect marked on the piece of paper is reproduced over the forehead.

(4) *Incision* :- The incision is made on the forehead all along the marked boundary of the flap, the incision is deepened upto the bony scalp which is about $2\frac{1}{2}$ "sut" deep.

(5) *Cutting of the flap* :- The skin is incised and flap raised from all round except the skin between the eye brows which acts as a pedicle (Thumb) and maintains the blood circulation of the flap.

(6) *Preparation of the bed of the nose* :- While making fresh the margins of the defect on the cut nose the forehead flap is kept covered with a wet medicated cloth.

(7) *Rotation of the flap* :- The forehead flap is then rotated and applied over the fresh wound of the defect of the nose. The intact skin between the eyebrows acts as the pedicle (Thumb).

(8) *Stitching of the flap* :- When the flap has been fitted over the defect 8 stitches are applied with cotton thread on a needle to keep it in position. Three stitches are applied over the left side of the flap, three on the right side and two stitches are applied to keep the middle part of the flap in position. The position of the stitches are shown by Hakim Dina Nath as follows 3-2-3

(9) *Packing to keep the nostrils patent* :- Pencils of cotton cloth dipped in medicament are introduced in the two external openings of the nose to keep these patent and in proper form.

(10) *Forehead defect* :- The margins of the forehead defect are brought together and stitched under tension. The wound of the forehead took weeks to heal, and was first filled up with granulation

(ANGOOR) which was later covered up by the growth of skin from the two sides of the wound. The direction of the resultant scar on the forehead was according to the direction of the margins of the flap removed.

Post-operative Management :

- (i) The patient had to lie motionless on bed for 3 days, after which he was allowed to sit and walk.
- (ii) *The Diet and bowel* :- The diet prescribed for the first week was such that it required no chewing, was nutritious, light and caused no constipation. Lugri (Rice-water) and Subudana diet met these requirements. The bowel was locked for the first 3 days. The patient returned to normal diet after one week.
- (iii) *Post-operative infection & dressings* :- Occasionally the patients had post-operative fever, nothing special was done to treat that. The operation wound was dressed daily for three weeks. Pus and blood discharge was mopped away, the wound was cleaned and washed with hot water swabs, and an ointment was then applied locally.
- (iv) *Removal of stitches* :- The stitches were removed after seven days, but daily dressing and observation of the wound was continued for 21 days.

The second-stage operation

The second operation is performed after three weeks. By this time the flap has fixed and fitted itself properly, over the nasal defect. The redundant skin of the

flap and pedicle is excised to be thrown out. On cross questioning Hakim Dina Nath said that this unused flap is not returned to fill up the forehead defect. A few stitches are applied to the nasal and flap wound margins from where the excessive skin has been excised and the repaired nose is given its final finished shape. The forehead wound is dressed and bandaged. The patient is mobile after the second operation.

Patient's discharge and Results of Operation

On the average patients are fit to go home after 22 days, that is immediately after the second operation. They are given medicament and direction for dressing of the forehead wound. Some of the patients in whom the healing of wound is slow have to stay for observation upto 40 days after the first operation.

The results of operation were pleasing both to the surgeon and the patient. The patient once again got back his lost nose. The successful results lead to the popularity of the operation.

The Dressings & Medicaments

The dressing material used for cleansing and swabbing of wound during and after operation consisted of gauze cloth (without *maya* i. e. unstarched) and pieces of cotton. Cotton (khaddar) thread was used for stitching and oily ointments for local application. French traveller Vigne had remarked that Nilathotha (blue vitriol) formed a part of the local ointments and that gave green colouration to the reconstructed nose. Hakim Dina Nath told that (copper sulphate) Nilathotha

which is a poisonous drug was not used by him nor by his forefathers, and the colour of the new nose matched the colour of the face and forehead. The operation never resulted in a green nose. Slight bluish discoloration of the operated area due to sluggish circulation in the weeks immediately following operation might have misled Mr. Vigne to believe that the Medicament applied to nose after operation contained Nilathotha (blue vitriol).

The Instruments

There were about 15 instruments used for the operation; five of which were sharp and used for cutting. The instruments were of different sizes and shapes and designs. The sewing instruments (*Needles*) were also of different size (long-short), shapes (straight, curved) and ability to pierce tough or soft tissues (Cutting round body).

The "*Nashtar*" (knife) ii) *Qainchi* (Scissors), iii) (*Sui*) (Needle) vi) *Tullah* (*Forceps*) to hold tissues as well as to hold bleeding points—were the various instruments for this operation. They were made of iron and were in a rusted condition now. According to requirements they got these instruments manufactured from the blacksmith or purchased ready-made instruments from the town.

There were mixed instruments wherein one side is a knife and the other side used as holding forceps. The scissors were of two types, one variety having sharp pointed ends and the other rounded ends. They were either straight or curved. Hakim Dina Nath told that the *Tullah* (artery forceps) also called "*Chintu*"

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caught a bleeding vessel on the same principle as the bite of the mouth parts of an ant.

The "Vigne Report"

The description of Rhinoplasty at Kangra was given by the French Traveller Vigne and is as follows :—

"I learned that they (the Surgeons) first give the patient a sufficient quantity of opium, bhang (Cannabis Indica) or wine to render him senseless, they then tap the skin of the forehead above the nose, until a sort of blister arises, from which a piece of skin of proper shape is then cut and immediately applied as a nose, sewed on, and supported with pieces of cotton. The wound is then dressed with an ointment in which blue vitriol is an ingredient. The Surgeons practice on the credulity of the Hindus, by telling them that all that is done is by favour of the Devi or Spirit who is featureless and the operation would succeed nowhere else but at Kot Kangra. On my way to and from the place I saw several persons who had been operated on, and were returning homewards, looking quite proud of their new acquisition, which was however, but a sorry substitute of the old feature".

"Street News"

The people of Kangra had a high opinion about the art of nose-making at Kangra. As mentioned in a couplet earlier they were not at all worried if they had to lose their nose because it was well and easily reconstructed at Kangra

The author made inquiries from the local people of the town as to technique

of operation performed by the Kanghairas (Nose-Surgeons) of Kangra. There were different descriptions by different persons. One of them referred to the forehead skin being used for reconstruction of the nose, and told that the *surgeon took skin from the buttock to fill the gap created by the forehead flap used for making the nose.*

Comments of Hakim Dina Nath on the above reports

Hakim Dina Nath when cross-questioned told the author, that they did not use opium or bhang to make the patient senseless. They however administered a small quantity of wine before operation. As already explained blue vitriol did not form an ingredient of the ointments used for dressing. Prayers were offered to Gods before operation in order to have favourable results of operation. Skin of the buttock, was not used to fill the defect of the forehead. The forehead wound healed by granulation.

Inner-lining & bony support

When asked Hakim Dina Nath told that the lower margins of the forehead flap were folded to provide the inner lining and the lower stitches were high up within the nose where the *in-folded skin margin* met the original inner layer of the intact part of the nose. They did not find it necessary to provide bony support to the reconstructed nose because in almost all cases the cut was partial and bony support was always intact. Even in totally lost nose they did not perform bone grafting; he said the flap skin walls folded on itself gave proper form and enough support to the nose. He was not aware of bone grafting when the

author told him about that.

The time of operation

The deformed noses which resulted from "cut-nose" reported for operation months after the injury when the original wounds had healed. When cross questioned Hakim Dina Nath told the author that no patient had reported to them immediately after the accident or fight; and it was not possible nor advisable to start repairing the nose until the infection had subsided and the original wound had healed well.

As for the reconstruction of the nose which had been destroyed by chronic Nazla (Leprosy/Syphilis) the repair of the nose was not undertaken until about six to seven years after manifestation of disease. The nose was successfully reconstructed only when the Nazla had cured itself, the nasal ulcers had healed and the nose had been destroyed to maximum limits. Forehead-flap rhinoplasty was used to reconstruct such nose. The steps of the operation were the same as already described.

Otoplasty and Operations on the face and tongue

Reconstruction of torn ears at Kangra

was limited to reconstruction of lobule of the ear from a cheek flap. Similarly repair of the facial wounds and surgical treatment of trauma to other parts of the body was also done by the Kanghairas. In cases of injuries of tongue, which was mostly due to voluntry sacrificial cutting of the tongue by the devotees before the Goddess at Kangra, the Jarah was only called into stop severe bleeding in an occasional case. In most of these cases, due to the special quality of tongue to regenerate, the wound healed by itself within a few days. The same instruments were used in these operations as in case of rhinoplasty.

Summary

Plastic surgical operations for cut and deformed noses and torn ears had been practised at Kangra for over 500 years by a family of nose-surgeons locally called Kanghairas. Hakim Dina Nath is the last surviving descendant of the family who himself performed these operations till 1937. This paper is a report of the "on the spot" inquiry conducted by the author to verify the facts for himself.

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